Long-term results of interventional therapy for subtotal infrarenal aortic occlusion

Tina Cohnert, Tatyana Belyavskaya, Peter Konstantiniuk, Stephan Koter, R. Horst Portugaller*

Depts. of Vascular Surgery and *Vascular and Interventional Radiology, Graz University Hospital, Graz Medical University, Graz, Austria

Purpose
Long-term durability after endoluminal therapy in subtotal aortic occlusion (SAO) is still under discussion. Aim of this study was to evaluate long-term results of interventional therapy by primary stent implantation in patients (pts) with SAO.

Material and Methods
Between April 1996 and May 2014 35 pts were included in the study. After ethics approval and informed consent prospectively collected data were analysed retrospectively. All patients underwent clinical and radiological investigations. One patient was excluded from further analysis (withdrawal of informed consent).

Results
35 patients underwent angioplasty with primary stent implantation. Mean follow-up was 81 months (range 2-205 months). Technical success was achieved in all patients. The early procedure-related complication rate was 5.9% (2/34) - one femoral access site bleeding, one pseudoaneurysm development requiring surgery. 30 day morbidity was 11.8% (4/34: one stroke, one peripheral embolization and two above). 30 day mortality rate was 0% (0/34). Mortality rates were 15.3% (3/21) after five years and 23.5% (4/17) after ten years. The primary patency rates: 100% (32/32) after one year, 100% (16/16) after five years, 91% (10/11) after 10 years. The mean estimated primary patency was 185.6 months. Five patients required further surgical or endovascular reconstruction for PAD progression distally.

Conclusions
Endovascular stent implantation is a safe and long-term effective strategy for the treatment of infrarenal aortic occlusive disease. Long-term follow-up is recommended due to the underlying disease with development of vascular stenosis proximally or distally to the treated aortic segment.